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FROM THE DESK OF:

J. Kenneth Jones

JOHN WILSON - MILFORD  
MINE

Hole 20 went to 1500 feet  
but last 250 feet not assayed  
because of weak mineralization.

Looks like it is pretty much  
of a dud - so Phillips  
projections must be modified.

Thanks for plan maps.

**G. WARNOCK**  
MINING & GEOLOGICAL CONSULTANT

**SXM**

**NOV 9 1973**

**RECEIVED**  
November 5, 1973

Mr. Ken Jones  
Essex International, Inc.  
1704 West Grant Road  
Tucson, Arizona 85705

Dear Ken:

After a diligent search of the old files, including some boxes stored in my garage, the enclosed is all I could come up with.

Apparently the maps furnished us plus the one surface geology map we made went with Bob Reynolds when we closed out the Tucson office in late 1961. Subsequent to the enclosed report, which was the original property investigation report, we optioned the property, ran two widespread horizontal bulldozer trenches around the contour, and mapped the geology in detail. We then recommended a low footage shallow drill program to test the surface outline of the "pipe" verbally and were writing up our mapping results and the above recommendations when the program was terminated in August or September of 1961. The second report was never completed, and I am afraid the enclosed, while not much help to you, is all I have.

Sorry that I could not be of much help.

Sincerely,

G. Warnock



GW/gf  
Enclosure

*R. R. Reynolds*

COPY

Squaw Peak Copper Prospect - Yavapai County, Arizona

Enclosed is Warneck's report on this property. This is quite an old and tried prospect and the portion of it that has been tested by Bear Creek and Ventures holds no attraction whatever. However, George and I were somewhat impressed by the type of mineralization present north of the known area. Apparently no one, at least recently, has recognized the potential of this area until Wyman came along.

While this mineralization is in pre-Cambrian granite, which generally is sufficient to condemn it, the stockwork occurrence is intriguing. I believe that bulldozing of the very shallow overburden covered slopes would serve to expose the approximate limits of the mineralized area. The outcrop has not attracted attention in the past due most likely to the low pyrite content and lack of the typical gossan. It is just possible that this one may be a "sleeper".

---

R. R. Reynolds

TO- R. R. Reynolds, Chief, Arizona Exploration Unit  
Corporation

FROM- G. F. Warnock, Geologist, AEU, Corporation

SUBJECT- Squaw Peak Copper Prospect - Yavapai County, Arizona

1. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Squaw Peak Copper Prospect is currently under lease to the Intermountain Exploration Company. Since large scale, low grade copper possibilities are thought to exist on the property, Intermountain Exploration would like to release the property to a larger company.

The deposits consist of two distinct and separate areas of mineralization. The southern mine area is structurally controlled chalcopyrite-molybdenite mineralization averaging 0.37% Cu and 0.03% Mo in the wall rock throughout the entire underground workings with a few higher grade ore shoots localized on structures. The southern area is considered to be of no interest in itself. The northern area is a nodular type gossan after chalcopyrite-molybdenite mineralization in a highly silicified quartz stockwork and possibly an intrusive pipe. This area, although lacking sufficient outcrop to delineate properly, is thought to be of wide enough distribution to contain a small to medium size open pit operation. It is recommended that the property be acquired and the northern area be explored by mapping, bulldozer trenching and drilling, in that order.

2. SCOPE

The property was brought to our attention by Mr. Richard Wyman of the Intermountain Exploration of St. George, Utah, who held option to Purchase on the property. The property was visited by R. R. Reynolds and myself accompanied by Mr. Richard Wyman for approximately 5 hours on June 28, 1961.

3. LOCATION AND ACCESSIBILITY

The property is located in Section 30, T13N, R5E, G11E and Salt River Principal Meridian. This area is in east central Yavapai County, Arizona. It is on the western side of the Verde Valley approximately half way from the valley floor to the lip of the volcanic plateau above.

The property is reached by taking the Brown's Spring road south from Camp Verde for approximately 6½ miles to a right turn, thence 2 miles to the property.

4. PROPERTY AND OWNERSHIP

The property is owned by the Squaw Peak Mining Company an Arizona corporation. There are approximately 300 stockholders. A Mrs. Edison Thacker, the widow of the original locator, holds 50% of the stock. Gale Wingfield holds a large interest in the property and is now the main driving force behind the corporation. Most stockholders and both Mrs. Thacker and Mr. Wingfield live in the Camp Verde area. The property consists of 61 unpatented claims.

The Intermountain Exploration Company of St. George, Utah, holds an Option to Purchase from Squaw Peak Mining Company. Intermountain Exploration, a small company with limited finances, hoped to develop small tonnage, high grade ore bodies within the area of old workings but since their discovery of what they consider large scale open pit possibilities, to the north of the old workings, they want to pass the property on to a large company that can finance the exploration and development of such an operation.

Mr. Wyman (who incidentally was with Cerro at the Cerro de Pasco Mine from 1950 to 1952) stated that Intermountain Exploration wanted a deal wherein a company would take over completely their option commitments to Squaw Peak Mining Company and would pay Intermountain Exploration a royalty of three cents a ton milled on production. It was pointed out to Mr. Wyman some companies preferred a percentage of net smelter returns against a final end price. Mr. Wyman agreed to take this up with his principals and will offer us a percentage against an end price as soon as possible. He will also send us a copy of their agreement with Squaw Peak Mining for our inspection as it is somewhat complicated. In the meantime an outline of this agreement is given below.

1. Intermountain's total investment to date is approximately \$10,000.00.
2. They did have some free time.
3. They are now paying \$200.00 per month rental which continues to April, 1962, at which time a payment of \$10,000.00 is due.
4. No further rentals are to be paid after the \$10,000.00 payment in April, 1962.
5. They agreed to keep up assessment work on all 61 claims.
6. All payments above (except assessment work) are to apply against the end price.
7. An end price of \$5,000,000.00 to be paid as a 5% royalty on net smelter returns if production is

less than 1000 tons per day, or royalties of five cents per ton milled if production is 1000 tons or more per day, minus the rental payments with no time limit; or, the property can be bought outright for \$2,000,000.00 cash at any time.

## 5. HISTORY

The property was long held by Edison Thacker who formed the Squaw Peak Mining Company. They reportedly produced 1000 tons of 1.25% copper and 0.5% molybdenum which was milled in a 5-ton per day mill on the property. The tails, old foundations, etc. of this mill still exist. Bear Creek Mining Company optioned and explored the property in the early 1950's. They ran channel samples of the entire underground workings and these samples averaged 0.37% copper and 0.03% molybdenum. Ventures, Limited held the property in 1955. They sampled the entire underground workings with 5-foot long holes into the walls at 5-foot intervals. Their results agreed closely with Bear Creek's, thus establishing the grade of the south end of the property where the workings are. Intermountain Exploration Company optioned the property with their sights on high grade structurally controlled shoots in the area of old workings. When they evaluated the disseminated gossan of the north end, they decided it was too large a project for them and they sought help.

## 6. PHYSICAL FEATURES

The property is located at 4000 to 4500 feet elevation on the very steep western slope of the Verde Valley. The area is typical of these elevations in the Basin and Range Province, supporting some desert type cover and some restricted evergreen growth. No water is available on the property the old workings are making some minor water. Ample water is available for any size operation in the Verde Valley within a mile and a half of the property. A power line runs through the valley within a mile and half of the property. Due to the steep topography, any mill or permanent installation would necessarily need to be located in the valley at the source of water or power. A restricted amount of labor is available in the Verde Valley although limited labor and also bulldozers are available for exploration work.

## 7. GENERAL GEOLOGY

The host rocks of the area are pre-Cambrian granite and related intrusives. The normal coarse grained, statistically unproductive, pre-Cambrian granite is the most abundant rock in the area although in the areas of mineralization there can be identified many different types of igneous rocks including quartz monzonite, quartz diorite, aplite and/or a fine grained granite. Due to restricted outcrop, it is impossible to decide if these variations are actually later intrusives or alterations of the pre-existing granite. Maps supplied by Intermountain Exploration differentiate granite and quartz monzonite in the mine workings but inspection of the workings display the fact that the variations in the petrographic nature of the rock are

very subtle as most variations mentioned above are also found in the mine. The most important geological point of the rock type is that although the general area is considered to be pre-cambrian granite, the actual rock type in the areas of mineralization are complex variations either of the pre-existing granite or of later intrusives.

The southern area, or the mine area, is characterized by complex igneous rocks being cut by numerous small structures. These structures apparently host later intrusive dikes or alteration that varied the nature of the original rock. There is only minor additions of quartz and the rock appears to be relatively unaltered except on structures. The north end is distinctly a different thing. This area is characterized by an intense stockwork of introduced quartz. There has been brecciation and many fragments of foreign igneous types were observed. Some fragments of intrusive rock, it is difficult to know what of the original intrusion or fragments carried up or down, during later intrusion and intrusive breccia pipe development. Of the fragments of intrusive rocks, it is difficult to know what intruded what as fragments of aplite may be found in either a granite or quartz diorite host and conversely, fragments of granite or quartz diorite may be found in an aplite host. Although lack of outcrop foregoes delineating the area occupied by the stockwork or pipe, if that is what it is, there is apparently a change from normal granite to silicified, feldspathized granite as the central area is approached. From our brief observations, an area of 1000 to 1500 feet long by 300 to 400 feet wide may contain the intensely silicified complex core of the hypothetical pipe.

## 7. MINERAL DEPOSITS

Mineralization in the southern area is a structurally controlled deposition of chalcopyrite and molybdenite. The old workings followed and attempted to intersect these structures. The 1000 tons of ore reportedly produced averaged 1.25% Cu and 0.5 Mo. This production came from a pod or pipelike ore shoot formed at the intersection of two of the stronger structures. This mineralization is contained in a silicified area as patches or large blebs of chalcopyrite and molybdenite with very minor pyrite. Intermountain Exploration is currently drilling underground to establish the down plunge continuity of this mineralization. As previously mentioned, Bear Creek and Ventures both sampled the entire underground workings in the hope that the overall wall rock mineralization would make a low grade open pit operation. They both found the overall average to be 0.37% Cu and 0.03% Mo. Upon inspection, it is seen that this low grade mineralization is not disseminated but is contained as many small mineralized fractures.

The surface above this mineralization displays well defined structures carrying copper stain and limonite. I would judge that the indications of vein mineralization on the surface are deceptive in that they look more promising than proved to be the case underground. However, of more importance is the fact that the low grade mineralization between the structures left almost no surface expression in the weathered igneous host.

The north end mineralization is copper staining, probably malachite, and blebs or nodules of pitchy limonite associated with the introduced quartz of the quartz stockwork. The limonite is predominantly dark pitchy limonite with considerable hematite. There is also some ochreous yellow limonite that has the appearance of a lead gossan but is more likely the expression of molybdenite in the form of hydrous ferric molybdate or ferrimolybdate. In some of the nodules of pitchy limonite actual boxworks after chalcopyrite can be observed and there seems to be little doubt that the surface expression indicates a nodular mineralization of chalcopyrite and molybdenite with minor pyrite. The distribution of this gossan is also difficult to pin down due to the lack of outcrop but it can be said that of those outcrops we saw in the intensely silicified pipe (??) most, if not all of them, showed some indications of mineralization. Thus, with no other data available, it seems reasonable to suggest the gossan area will parallel the stockwork area and assume these rough dimensions (1000' to 1500' by 300' to 400').

The depth factor is completely unknown on this mineralization but if our first impressions of this being a large pipelike area held true, then there is no logical reason to assume that the mineralization will not go to considerable depth.

## 9. DEVELOPMENT, EXPLORATION AND POSSIBLE MINING METHODS

There are numerous underground workings, principally drifts on three different levels in the southern mine area. Maps of these along, along with both Bear Creek and Ventures sampling data, are available but we inadvertently left these on the property and have not as yet retrieved them. There are several houses and sheds at the portal of the main level and an access road to these.

Exploration of the southern mine area has consisted of underground drifting by Squaw Peak Mining, complete sampling by Bear Creek and Ventures and underground diamond drilling by Intermountain Exploration Company.

The northern area has had no development or work of any nature except an adit which was driven from far below on the mountain side toward the pipelike mineralization. This adit, known as the Verde Squaw tunnel, is now caved near the portal but is reported to have gone in 1400 feet which would put it almost to the mineralized area. If this is so and the tunnel can be reopened without excessive cost, it would make an advantageous place from which to drill to contact the hoped for mineralization at depth.

Since it has been demonstrated rather conclusively that the southern mine area does not have the grade for open pit mining, mining methods in this area will be restricted to underground methods on the small tonnage ore shoots.

The northern mineralization lends itself well physically to open pit methods. Stripping, if any, would consist of removing the oxide zone of the deposit. It is thought that an open pit could go to 400 feet without any stripping of barren rock. If mineralization continued to depth, block caving methods might be called upon although it is impossible to predict how well the material would cave.

#### 10. METALLURGY

The mineralization is apparently the simple sulfides-- chalcopyrite and molybdenite with some pyrite--thus, no metallurgical problems are foreseen.

#### 11. ORE RESERVES AND POSSIBILITIES

No ore reserves are known on the property. The possibilities in the southern mine area are restricted to low tonnage, high grade ore shoots, and the rather extensive underground work has indicated only one ore shoot.

The northern area contains considerable possibilities, but it is difficult to assess these without further work. Our rough areal estimate of 1000 by 300 feet would allow for 30,000 tons of ore per vertical foot, thus 300' depth would allow for 9 million tons and 600 feet for 18 million tons. Although these are minimum tonnages for open pit operations, it is emphasized that they include only what seems quite probable area-wise, and it is not unfeasible that mapping and trenching may expose a considerably larger area of interest.

#### 12. EXPLORATION AND DEVELOPMENT RECOMMENDED

No further interest is recommended for the southern mine area, but since the northern area is considered a good exploration risk, it is recommended that Intermountain Exploration's lease on the property be picked up under the best terms possible. The northern area should be explored by first attempting to map the few outcrops as well as possible. Then bulldozer trenching should be done in such a manner as to most advantageously expose rock and also to create access for possible future drilling. This would probably best be done by making horizontal road/trenches around the hillside progressing from top to bottom at 100 or 200 foot intervals. Bulldozing will be expensive and slow due to the steep rocky hillside. Depending upon the results of the trenching, drilling can then be initiated on a grid pattern following the 100 or 200' spaced roads. At this point consideration should be given to reopening the Verde Squaw tunnel as a drill station.

REPORT

SQUAW PEAK COPPER MINE

Yavapai County, Arizona

SUMMARY

NAME

Squaw Peak Copper Mine

LOCATION

7 miles south of Camp Verde and 2 miles west of the river--  
Camp Verde is on the Verde River, 36 miles from Jerome in  
Yavapai County, Arizona.

CHARACTER

Quartz Monzonite intrusion in granite. Entire intrusion is  
more or less mineralized but mineralization is more intense  
in shear zones carrying a larger percentage of quartz.  
Mineralization consists of chalcopyrite and molybdenite with  
small amounts of silver and gold.

DEVELOPMENT

Some 5,000' of adits, drifts, crosscuts, shafts and raises.  
Most of the work is in the "main tunnel" from which there is  
a raise connecting with a shaft. The elevation of the "main  
tunnel" is 4150 ft., the collar of the shaft 4320 ft. and  
the haulage tunnel below is 3850 ft. The haulage tunnel is  
2050 ft. long with a diamond drill hole from the face. So  
far only low grade ore has been encountered in the haulage  
tunnel. Level map is attached.

TERMS

Several months in which to sample. Comparatively small pay-  
ments plus royalty, or under certain conditions the present  
offers, some 400 stockholders, but with Mr. Thacker holding  
a controlling interest, would accept stock in a new company.

FUTURE  
POSSIBILITIES

The "core" of higher grade ore, and there might be several of  
them, could be mined on a 200 or 300 ton basis but possibly  
the entire Monzonite intrusion is mineralized to an extent  
that would warrant a large tonnage low grade operation.  
Only more extensive sampling would determine if either pro-  
ject is possible.

ORIGIN

J. W. Wingfield brought the matter to our attention.

SOURCE OF DATA

Report by J. M. Hill, Geologist, who was connected with the U.S.G.S. at one time. Maps, et cetera, furnished by Mr. Thacker and a visit and minor sampling by the writer.

HISTORY AND PRODUCTION

The property is composed of 19 claims which are unpatented and held by annual assessment work.

The company, Squaw Peak Copper Mining Company, is an Arizona corporation organized in 1916.

Mr. Edison Thacker, who lives at the property, is President and General Manager of the company. There are 992,882 common stock shares issued out of 2,000,000. Also 1,000 shares of \$100 preferred stock which are still in the treasury although authorized in 1949.

In 1942 there was an R.F.C. loan for increasing the capacity of the mill.

The mine has been examined and reported on by:

- 1916 - W. D. Defty
- 1927 - William Selinger
- 1929 - Robert J. Cole
- 1940 - Roy H. Belknap
- 1942 - D. F. Campbell for R.F.C.  
\$20,000 was loaned by the R.F.C.
- 1949 - J. M. Hill

In 1948, 1,000 tons of ore were treated in the 35-ton flotation mill.

The product consisted of 5.40 dry tons, 98.82% Molybdenite (MoS<sub>2</sub>) and 36.03 tons of copper concentrate running 22.85% Cu, 1.92 oz. Ag and 0.016 oz. Au.

GEOLOGY

The mountain itself is old granite with a capping of limestone near the peak. East of the peak and mine is the Verde Fault with granite on the west and blue grey Limestone on the east. The granite is Precambrian and the limestone Mississippian. West of Squaw Peak is an area of Tertiary Volcanic rocks.

The mine is in a mineralized Quartz Monzonite intrusion into the granite. The Monzonite is some 2500' long by 1200' wide at its widest point, tapering down at either end. The Monzonite is cut by many fractures and faults - striking and dipping at various angles from vertical to around 35°. At places there is more quartz than at others and the mineralization appears to increase in quantity where the quartz is more prominent. The quartz-bearing higher grade areas appear to have some connection with the fractures and faults, possibly a shear zone.

MINE

The main adit is some 500' to the main drift with mineralization starting about 370 ft. from the portal.

The south drift is some 240 ft. in length with a curve to the west at the end.

The adit is continued some 340 ft. west at a crosscut from the main drift and the north end of the main drift is some 480 ft. In the south drift there is a stope, from which ore for the 1,000 ton mill was taken, and several crosscuts. The stope connects with an upper level and shaft by means of a raise. The stope is in the so-called "core."

The Haulage level is 2050 ft. long driven in a straight line as shown on the map. It has some showing of mineralization but has not, I believe, been driven a sufficient distance.

MILL

The mill is a 35-ton flotation mill in poor repair.

The following data on the mill run of approximately 1,000 tons is taken from Hill's report.

MILL RUN

Data from milling stoped ore body, Squaw Peak Records and Alan Kisseck-Rodriguez Sampling.

Tons ore milled 975.5

Total tons MoS<sub>2</sub> Conc, shipped 5.408  
 " " unshipped 0.25 5,658

Total tons Cu Conc. shipped 36.034  
 " " unshipped 2.000 38,034

Total Tails 43,692  
(call) 932.0

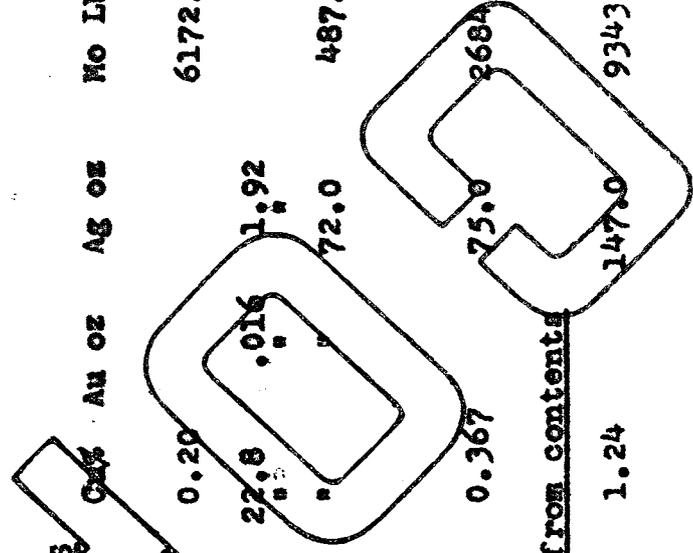
ANALYSIS

	MoS <sub>2</sub>	Cu	Ag	Au	Mo	As	Ant	Bi	Co	Cr	Fe	Mn	Ni	Pb	Sb	Se	Te	Tl	Zn	Zr	Cu Lbs. contained
MoS <sub>2</sub> Conc. shipped	5.408																				6172.0
" unshipped	0.25																				11.0
Total MoS <sub>2</sub> Conc.	<u>5.658</u>																				
Cu Conc. shipped		36.034																			487.0
" unshipped		2.000																			17,344.0
Total Cu Conc.		<u>38.034</u>																			

Total Milled 975.5  
 " Cono. 43,692  
 Total Tails (call) 932.0

Total in 975.5 tons heads 9343.0 24196.0

Calculated from contents



It will be noted that Hill gives the Mo content as .75% although according to his figures it should be 0.48.

RESERVES AND POSSIBILITIES

Hill gives the following for developed ore.

640 x 280' x 170 depth for surface = 2,538,000 tons averaging 1.63% cu 0.24% MoS<sub>2</sub>. He also gives a probable ore estimate as 31,900,000 tons above the main level. He also mentions 56,250,000 tons of possible ore.

In his figures he gives the "core" a possible tonnage of 212,000 tons from 40' wide, 240' long, 170' above level - 25' below. A stope in this area furnished the 1,000 tons for the mill run and he gives it an average value of 1.20% Cu, 0.75% MoS<sub>2</sub> and 0.50 oz. Ag. This would be 1.20% Cu, .45% Mo instead of MoS<sub>2</sub>.

CONCLUSION

This property is on the border line. It is possible but I doubt if there is any large tonnage of 1.2% Cu and .45% Mo. There is also the possibility of a very large tonnage of .5% Cu, .08% Mo ore and, of course, the 1% and .5% Mo would be a sweetener and there is the possibility of more than one "core" of higher grade.

.5% Cu and .08% Mo	=	\$ 5.90	90% Recovery
1.2% Cu	=	19.32	\$5.31
			17.39

It is impossible to tell offhand without extensive sampling and if future markets are encouraging I suggest the following:

Air lines are in place throughout the mine. Using jackhammers I would drill 5' holes at 5' intervals throughout the level using the cuttings as samples. This should outline the mineralized area and give a definite idea of the correct grade. It would not be extremely expensive as pipe and track are laid. This might indicate a large tonnage low grade mine.

Respectfully submitted,

Daniel Stranahan

SQUAW PEAK

Sample #

Cu

Mo

1  
2  
3  
4  
5  
6  
7  
8  
9

.75  
1.04  
.36  
.49  
.44  
.51  
.19  
.16  
.77

.26  
.12  
.09  
.08  
.07  
.07  
.06  
.37  
.42

COPY

**R E P O R T**

**on the**

**SQUAW PEAK COPPER MINE  
Yavapai County  
Arizona**

**by**

**J. M. HILL, GEOLOGIST**

**October 19, 1949**

October 24, 1949

Mr. Edison Thacker, President  
Squaw Peak Copper Mining Company  
Camp Verde, Arizona

Dear Mr. Thacker:

Pursuant to the request in your letter of September 25, 1949, I have made a geologic study of your copper mining property, and herewith transmit my report in triplicate, as requested.

I spent from September 27th to October 5th in this study, in which you were so helpful. I did not attempt to sample any part of the exposed ore, and have accepted the sampling data from previous work by others as essentially accurate. The maps used were furnished by you. I have traced them and made the additions warranted by my observations.

I wish to thank you and Mrs. Thacker for your many courtesies during my stay at Squaw Peak Camp.

Yours sincerely,

J. M. Hill  
Registered Geologist

Encl.

# C O N T E N T S

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Location and Access  
Property Ownership  
Finances  
History  
Development

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Value of Ore

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Milling

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## RECOMMENDATIONS

## ACKNOWLEDGMENTS

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#2 Claim Map showing general geology  
#3 Geologic Map of Mine Workings  
#4 Sampling Map of Mine Workings

# REPORT

on the

## SQUAW PEAK COPPER MINE Yavapai County Arizona

by

J. M. HILL, GEOLOGIST

### INTRODUCTION

#### Location and Access:

The Squaw Peak Copper Mine, in eastern Yavapai County, is located 2 miles west of the Verde River about 7 miles south of Camp Verde. The larger towns of Cottonwood, Clarkdale and Jerome are distant 28, 30 and 36 miles to the north. The famous copper town of Jerome is 39 miles east of Prescott, the county seat of Yavapai County. Blacktop highway 89 is taken when leaving Prescott, and followed to 1 mile beyond the Verde River Bridge at Cottonwood. At this point a right turn is made south onto the Montezuma Castle paved road which goes to Camp Verde. South of the latter town there is a well-signed and maintained gravel road to the Squaw Peak Mine. A branch of the Atchsese, Topoka and Santa Fe Railroad reaches as far as the smelter at Clarkdale. (See Map #1)

#### Property and Ownership:

As shown on Map #2, there are 19 claims in the Squaw Peak Group. These are held by annual assessment, though there is sufficient work on the group to obtain U. S. Patent. The larger part of the ground is in sections 29, 30 and 31 of T. 13 N., R. 5 E. of the Salt River Meridian. This area is shown in the upper left corner of the United States Geological Survey topographic map, TURRET PEAK. The Main Tunnel, at an elevation of 4150', is 2 miles west of the Verde River, about one-third of the way up the slope of Squaw Peak. A high tension line of the Central Arizona Light & Power Company is 1 mile east of the Camp, and 3/4 mile east of Haulage Tunnel Portal, which is at an elevation of 3850', just at the break of the mountain. There is a fine site for a large mill at the portal of the Haulage Tunnel.

The claims are owned by the Squaw Peak Copper Mining Company, an Arizona corporation, organized in 1916. Capitalization, at present, consists of 2 million \$1.00 shares of

common stock, of which 992,882 are outstanding, and 3,000 shares of \$100.00 preferred stock, authorized in 1949, of which all are still in the treasury. The preferred stock carries 6% yearly cumulative dividends.

Mr. Edison Thacker is President and General Manager, as well as a Director, of the corporation. Other Directors are V. F. Thacker and C. G. Mishler. I was told by Mr. Thacker that there are about 400 stockholders of which the addresses of only 260 are known. It is my understanding that Mr. Thacker owns or has control of sufficient stock to be in a position to make all decisions for the company.

#### Finances:

I was informed by Mr. Thacker that financially the Company is in good shape. The only obligations outstanding is the balance of a few thousand dollars on an R. F. C. loan made in 1942 for the enlargement of the flotation mill and for mine development. This loan is repayable on a basis of 5% of smelter settlements.

#### History:

In a report, signed by W. F. Defty, dated November 29, 1916, the recommendation is made that the tunnel (Main Tunnel) be driven 200 feet to cut the downward extension of the ore body, "which appears to warrant exploitation for its copper and molybdenite values." A report of William Solinger, November 30, 1927, was made after the ore had been cut by this tunnel. A report by Robert J. Cole, February 8, 1929, was of especial interest as the phosphyry was recognized as the ore carrier and the structural features were brought out. In Mr. Roy H. Balknap's report of January 29, 1940, driving of the Haulage Tunnel was recommended for an additional distance. Evidently funds were not available to continue this work to completion for it is still about 300 feet short of crosscutting the ore zone. In August 1942, the mine was examined and sampled by D. F. Campbell for the R. F. C., as a result of which work, an advance of \$20,000 was made to the Squaw Peak Company.

Apparently no shipments were made from the mine prior to 1944, after the 35-ton flotation mill was in operation. The total production made from treating 1,000 tons of ore was 5.40% dry tons of 96.82% molybdenite ( $\text{MoS}_2$ ), and 36.034 tons of copper concentrate averaging 22.85% Cu., 1.92 oz. Ag. and 0.016 oz. Au.

No production has been made in the last few years as mill recovery, while good, was not as good as it might have been had

there been adequate power. A small amount of development and diamond drilling was done on the ore zone on the Main Tunnel level in 1948. At the present time plans are in the making to purchase additional power, either diesel or electric, so that mining can be started on the known high grade copper-"moly" ore developed.

#### Development:

The ore zone is developed by numerous open-cuts and two short shallow tunnels at the surface, at elevations of 4425' to 4450', and by an inclined shaft whose collar is at an elevation of 4320'. This incline is one of the major ore feeders, and is in high grade "moly" copper ore. It is connected with the Main Tunnel elevation of 4150' by a raise in excellent ore from the steps above the Tunnel level (See Map #3). There is a small amount of diamond drilling in down holes from the Main Tunnel level, showing that the rich ore does go down 25 feet. The Haulage Tunnel, whose portal is near the middle of the South View claim (See Map #2), 1540 feet N. 70° E. of the portal of the Main Tunnel, is 300 feet lower, or at 3850' elevation. From the face of the Haulage Tunnel, there is a diamond drill-hole 150 feet long that cut mineralized porphyry for its whole length.

Total development consists of 4160 feet of tunnel and drift, of which 2050 feet is at the Haulage Tunnel and 2175 feet in the Main Tunnel; and, 217 feet of raises, mostly into the slope area above the south drift from the Main Tunnel. The steps has an area of approximately 1375 sq. ft., and slightly over 1,000 tons of ore have been extracted from it to date. Since mineralization does extend to the Haulage Tunnel level and some ore has been determined at that level, it can be said that there is the possibility of 575 feet of mining ground above the lowest development.

## G E O L O G Y

#### General:

Map #2 shows the general geologic setting of the Squaw Peak claims. The Verde Fault is the most conspicuous item of the geology since it separates blue gray limestone (probably Devonian) east of the fault from old Pre-Cambrian granite. The fault zone, itself, is well-marked by a series of drainage lines and low saddles on the interdrainage areas. The mouth of the Haulage Tunnel is not over 50 feet from this line. West of the fault, the mountain rises steeply, being composed for the most part of the Old Granite. This weathers readily into a coarse reddish, grey grit. The rounded outcrops are clothed with brush, and solid rock is inconspicuous.

Intruded into this granite, there are many large and small dikes, and a stock of a hard gray, red weathering, porphyritic monzonite, which in many exposures shows quartz, so it might be called quartz-monzonite. This rock has a blocky jointing and resists weathering so the outcrops stand well above the reddish grit derived from the old granite. The monzonite is the host rock for the ore, though there are some veins along fractures in the old granite near the stock.

These old formations extend over a width of about 1 mile, west of the Verde Fault and nearly to the base of the peak which is known as Squaw Peak. At an elevation of about 5000' the igneous rocks are capped by sedimentary rocks. First a thin layer of red flaggy sandstone, above which there is a considerable thickness of blue-gray limestone (probably Devonian in age) like the limestone at the base of the mountain east of the Verde Fault. The limestone is said to be capped by basalt which weathers red and is finally vesicular. Flats of these higher unmineralized formations can be seen in all the steep east draining canyons.

#### Geology of the ORE ZONE:

On the generalized geologic map of the claims (See Map #2), it will be seen that the bulk of the monzonite stock is on the Girder, Green Chief, Edith and Green Parrot Claims. It covers an area approximately 2500 feet in length, trending about N. 30° W., has a maximum, on surface, width of 1500 ft., and an average width of 900 feet. There are several large dikes extending both northwest and southeast from the main mass of the stock, so its actual area would be larger than the 2 million square feet of the stock proper. Only the larger dikes are indicated on Map #2. It is known that on the Main Tunnel the stock is 720 feet wide and probably more, and that on the Haulage level, 300 feet lower, the monzonite is 800 feet or more in width.

As will be seen from a study of Map #3, "Geologic Map of Mine Workings", all of these old formations are broken by many fractures and some faults of considerable magnitude. A great many of these breaks are about parallel to the Verde Fault, and are doubtless related to that movement. Most of the fractures and faults dip to the southwest at fairly steep angles, though some have dips as low as 35 degrees. Movement on most of these breaks seems to have been normal - that is, the "up" side slipped downward. There are also a large number of nearly east-west trending rather tight breaks that dip at medium to flat angles, either north or south. In the more highly mineralized area opened by the crosscuts from the south drift and in the steps, there are at least 3 conspicuous north to N. 10° W. vertical fissures that are highly siliceous and

carry chalcopyrite, molybdenite and a little sphalerite. Ore from these veins carry more than average values in gold and silver. The mineralized monzonite, adjacent to these quartz veins, is much altered with a peculiar purplish-red cast of the phenocrysts and is cut by a close irregular system of quartz veinlets, all of which carry more than ordinary quantities of copper and "moly".

On the Main Tunnel level, what appears to be, good copper mineralization, first shows 130 feet out from the turntable, where the north and south drifts take off, and extends to the strong fault shown just east of the dam, in the westward extension of the tunnel (See Map #3). In the north drift, copper mineralization shows up all along for 400 feet - almost to the monzonite-granite contact. The south drive is well mineralized to the south end - a distance of 240 feet.

On the Haulage Tunnel level, 300 feet below the Main Tunnel, copper mineralization begins to show up well - 523 feet out from the face, and the 150 foot diamond drill core shows at least that distance to be mineralized (See Map #4). The total known width of mineralized monzonite on the Haulage Tunnel level is therefore 673 feet. It should be noted that there is one area, 9 feet wide, cut between 57 and 66 feet by the diamond drill, that showed 0.70% Cu. and 1.02% MoS<sub>2</sub>, as shown on Map #3. This high "moly" area is almost directly in line with one of the vertical high grade veins, shown on the Main Tunnel level, and in the Steps.

That the copper mineralization is not entirely confined to the immediate monzonite stock, is shown by several mineralized zones along fractures cut nearer the mouth of both the Main and Haulage Tunnels. One or two of these are not at all bed locking, and elsewhere might have been developed as west promising. These can be considered as reserves for future exploration.

The Sulphides, pyrite, chalcopyrite, a little bornite and molybdenite are seen directly at the surface, though there is a little copper carbonate staining on joints of the monzonite all over the surface of the ore zone. This staining extends northward for a considerable distance beyond any underground work. It will be noted, however, from Map #2 that the stock narrows to the northwest on the surface. Southeastward from the shaft, the stock at the surface quickly narrows to a dike about 50 feet wide at the top of the ridge and less than that in the next canyon north.

## ESTIMATION OF VALUE AND TONNAGE

### Sampling:

I did not attempt to sample any part of the Squaw Peak Mine. The following estimates are based on the sample results of Engineers that have made reports on the property, as mentioned under History. I have seen the original reports, and have no reason to doubt the material I have used in making the following calculations. I did carefully examine all the workings that were accessible, and have noted on Map #4, "sampling Map of Mine Workings", my impression of the kind and degree of mineralization. On this map, there is also given the results of sampling by Thacker (as the work progressed), by Sturgis (date of this sampling uncertain, but presumably about the time of the Cole report in 1929, as only copper content is shown) and the Campbell (R. F. C.) sampling of the copper "moly" body in the south drift.

The ore in the high grade stopp area (see insertion Map #3 and Map #4), which was milled, is estimated by Mr. Thacker to have carried 1.20%  $\text{MnO}_2$  and 1.45% Cu. The R. F. C. sampling in the crosscuts below the stopp average 1.37% Cu., 0.287%  $\text{MnO}_2$  and 0.79% Ag. The copper checks with Thacker's estimate, but he is 1% higher than Mr. Campbell in "moly". This may be due to the fact that in this area the "moly" is in very large crystals, which give a deceptive appearance of richness and are very difficult to sample. However, it should be noted that in milling these 1,000 tons that came from this stopp, the recovered minerals, with admitted low recovery of the "moly", indicated that the ore carried 0.0015 oz. gold, 0.15 oz. silver, 0.48%  $\text{MnO}_2$  and 1.24% copper. It is quite evident from an inspection of the tailings that considerable "moly" was lost. As a matter of fact, Mr. Thacker estimates that his recovery of "moly" was only 60 to 65 percent of the content of the ore. Under this assumption, the ore carried at least 0.76% "moly". It seems to me safe to estimate the so called high grade ore at 1.20% Cu., 0.75%  $\text{MnO}_2$  and 0.50% oz. silver. This figure will be used in calculations.

The general mineralization is definitely copper, with only a small "moly" content - probably under 0.25%  $\text{MnO}_2$ , though little is actually known as to the "moly" content since it has not been properly sampled and assayed for both copper and "moly". The average of the area of definitely copper mineralization, as indicated by the Thacker and Sturgis sampling shown on Map #4, is copper 1.63% without the 7 assays of high grade copper ore sampled by Sturgis. With these high Sturgis samples included, the average would be copper

3.83%. In the following calculations, the figures of 1.63% Cu. has been used.

Value of Ore:

As stated under "Geology" of the Mineral Zone, the monsonite is definitely mineralized over an area 2500 feet long by an average of 900 feet wide on the surface - a total of 2,250,000 sq. ft. On the Main Tunnel level the area is developed for 640 feet in length and 280 feet wide - a total of 179,200 sq. ft. Taking only the footage developed by the Main Tunnel, with an average depth from surface of 170 feet, there is fairly definitely established possible ore, totaling 30,464,000 cu. ft., which, using the factor of 12 cu. ft. per ton, shows 2,538,000 tons of material, averaging Cu. 1.63% and  $\text{MoS}_2$  0.24%. Probable ore, as indicated by the surface area, could total 31,900,000 tons above the Main Tunnel. That this is a fair assumption, is indicated by the presence of fair copper-"moly" at the "moly" surface tunnel (300s and 750w on Map #4), and in several cuts as far north as the 1,000 coordinate.

Admitted that development in the Haulage Tunnel only partly shows the width of mineralization 673 feet, this is over twice as wide as the demonstrated ore zone on the Main Tunnel. The geology indicates that this stock of monsonite gets larger with depth, as evidenced by the many dikes shown on the surface. It seems reasonable to suppose that for each foot of depth below the Haulage Level, there will be at least 14,900 tons immediately below the area developed in the Main Tunnel, and an additional possibility of 172,600 tons assuming that the stock has vertical boundaries of the dimensions shown on the surface. Whether this mass of 56,250,000 tons will be ore remains to be proven by development. It is safe to assume that the values shown on the Main Tunnel level will continue downward for at least 50 feet; which would indicate additional probable ore of 746,650 tons, and possible additional ore of 8,630,000 tons.

Of immediate interest from an operating standpoint is the body of high grade "moly"-copper ore partly developed in the south drift of the Main Tunnel, in the stop and in the raise to connect with the surface shaft (See Map #3 and #4). This richer core of the ore body, as at present indicated by development, is 40 feet wide, 240 feet (possibly 400 feet) long and 170 feet high above the Main Tunnel. It is safe to assume that it will be of approximately the same character for at least 25 feet below the tunnel level. It contains 200,000 tons above the tunnel, and a possible 12,000 tons for 25 feet below the level, that ~~may~~ should carry

1.20% Cu., 0.75% MoS<sub>2</sub> and 0.50 oz. Ag.

There are at Squaw Peak Mine 3,284,650 tons of probable ore above or just below the Main Tunnel level, which contain 102,313,000 pounds of recoverable copper and 11,259,000 pounds of recoverable molybdenite, which have a combined market value of \$17,000,000.00, or \$5.175 per ton.

In the following table calculation, poundage of metal is based on a metallurgical recovery of 95% of the copper and 85% of the molybdenite.

(See Page 11.)

The high grade "moly"-copper stope in the south drift contains, above the Main Tunnel, 260,000 tons of reasonably sure ore which should yield on the same basis of calculation as used above: 4,560,000 pounds of copper; 2,550,000 pounds of molybdenite; and 95,000 ounces of silver, having a total value of \$1,882,000.00, or \$7.41 per ton (silver estimated at 60¢ at smelter). It is quite possible (as Mr. Thacker believes) that there are several thousands tons of ore immediately surrounding the high grade stope, which will average nearer 1.45% copper and 1.20% MoS<sub>2</sub> than the figure I have used for calculating the core area.

#### Operating Problems:

In the mining department, there should be no difficult problems for the ground stands well, as evidenced by the condition of the various workings. The larger faults will require heavy timbering, but as a rule the widths to be taken care of are small as compared with the rest of the openings which require no timber. The principal development for the immediate future will be the driving of more raises into the high grade ~~xxxx~~ stope area.

It is Mr. Thacker's opinion that with the gradual slackening off of mining at Jerome it will be possible to get well-trained mine labor for \$11.00 and common labor for \$10.00 per day. The cost of timber is coming down, and it is believed that mine timber can be purchased for 60 to 70 dollars per thousand. Thacker has recently been informed that a low electric power rate (the high tension line is only a mile from the mine) can be expected if it is decided to do away with the present diesel power plant.

The milling problem is not so simple. The present 35-ton per day plant will need overhaul before it can be expected to make the savings that are known to be possible on this ore. The present diesel engine is old and does

METAL CONTENT AND VALUE OF ORE

TOTAL ORE BODY

0 1,631 Oz.

0 0.20% loss

Probable Ore: 3,284,650 Tons

Residual 0.10%

Residual 0.54%

Above Main Tunnel

78,632,000

\$ 7,863,200

8,659,200

\$ 4,676,000

50' below Main Tunnel

23,631,200

2,361,000

2,599,800

1,403,900

Total.

102,263,200

\$ 10,224,400

11,259,000

\$ 6,079,900

Residual Ore: 37,992,000 Tons

Above Main Tunnel

909,322,100

90,932,200

99,830,800

53,908,600

50' below Main Tunnel

267,271,100

26,727,100

28,492,000

15,385,300

Total.

1,176,593,200

117,659,300

128,322,800

69,293,900

1

250' above Hangage Tunnel: 47,630,000 tons -- a real basis for evaluation.

\* 10¢ per pound for copper in concentrate sent to smelter.

\*\* 5¢ per pound, Ag. and Au. Journal, October 1949, page 100

not give quite enough power to run the crusher and maintain a steady flow of power to properly operate the flotation cells. It appears that it would be wiser and only a little more expensive to install electric power for individual drive on all the mill equipment than to purchase a new and larger diesel engine. In order to make the best recovery possible, it would be advisable to buy at least 4 additional Denver flotation cells - 2 for the copper circuit and 2 for "moly" cleaner work. A new and larger crusher with rebuilding of the feed bins is also indicated. Mr. Thacker has estimated that these changes can be made for under \$10,000. This expenditure would seem to be amply justified when one considers the quantity of good ore that can be considered immediately available.

In discussing the problem of cost of operation with Mr. Thacker, he estimated that using the revamped mill at a 35-ton per day basis, his costs would run about \$7.00 per ton. This would apparently leave an operating profit of over \$2.00 per ton on the ore from the 200,000 tons of high grade ore indicated in the south drift development.

If the proposed development works out as seems probable and connection between the Main Tunnel and Haulage Tunnel level is made, a new larger mill will undoubtedly be established at the excellent site near the portal of the lower tunnel. With a well planned mill, there will undoubtedly be a considerable saving in milling cost. Also to be borne in mind, is the fact that the larger the tonnage handled the less cost per ton follows automatically.

#### RECOMMENDATIONS

It would seem advisable for the company to try to raise sufficient funds to revamp the present mill and begin production. With the company in the sound financial condition that exists that should not be difficult. It would be advisable to raise at least \$30,000 - preferably \$50,000 - to assure that the progress of development and production would meet with no hitches.

There should be instituted a continuing prospecting campaign by drilling laterally from the south drift for extensions of the high grade copper-"moly" ore, and below the Main Tunnel level to determine more accurately the shape of the main copper ore body. That may be of importance.

Work should be started in development in the Haulage Tunnel level. It should be driven ahead to entirely cross-cut the monzonite stock so that this large mass of potential ore can be sampled and appraised. Drilling laterally and

in upholes from the Haulage level should be carried out.

Certainly more drilling and development on the copper body in the north drift on the Main Tunnel level is indicated and a connection should be driven from the present north heading to surface - approximately 375 feet - for proper ventilation of that area.

The program of prospecting the large potential copper ore body is going to take time and a large amount of money. It may be that one of the large mining companies could be interested in such a program and the company should consider such a move in my estimation. Of course, it would be much easier to interest outside assistance if the mine were on an operating basis. I, therefore, suggest that steps be taken as rapidly as possible to get into production from the high grade ore zone.

#### ACKNOWLEDGMENTS

I wish to express my thanks for the many courtesies extended by MR. and Mrs. Thacker during my stay at the mine. Mr. Thacker turned over for my use, any and all records, the maps of workings, and various surveys which were of much help in arriving at the conclusions contained in this report.

Respectfully submitted,

J. M. Hill  
Registered Geologist.

October 19, 1949.

REPORT

SQUAW PEAK COPPER MINE

Yavapai County, Arizona

SUMMARY

NAME Squaw Peak Copper Mine

LOCATION 7 miles south of Camp Verde and 2 miles west of the river--  
Camp Verde is on the Verde River, 36 miles from Jerome in  
Yavapai County, Arizona.

CHARACTER Quartz Monzonite intrusion in granite. Entire intrusion is  
more or less mineralized but mineralization is more intense  
in shear zones carrying a larger percentage of quartz.  
Mineralization consists of chalcopyrite and molybdenite with  
small amounts of silver and gold.

DEVELOPMENT Some 5,000' of adits, drifts, crosscuts, shafts and raises.  
Most of the work is in the "main tunnel" from which there is  
a raise connecting with a shaft. The elevation of the "main  
tunnel" is 4150 ft., the collar of the shaft 4320 ft. and  
the haulage tunnel below is 3850 ft. The haulage tunnel is  
2050 ft. long with a diamond drill hole from the face. So  
far only low grade ore has been encountered in the haulage  
tunnel. Level map is attached.

TERMS Several months in which to sample. Comparatively small pay-  
ments plus royalty, or under certain conditions the present  
owners, some 400 stockholders, but with Mr. Thacker holding  
a controlling interest, would accept stock in a new company.

FUTURE  
POSSIBILITIES The "core" of higher grade ore, and there might be several of  
them, could be mined on a 200 or 300 ton basis but possibly  
the entire Monzonite intrusion is mineralized to an extent  
that would warrant a large tonnage low grade operation.  
Only more extensive sampling would determine if either pro-  
ject is possible.

ORIGIN

J. W. Wingfield brought the matter to our attention.

SOURCE OF DATA

Report by J. M. Hill, Geologist, who was connected with the U.S.G.S. at one time. Maps, et cetera, furnished by Mr. Thacker and a visit and minor sampling by the writer.

HISTORY AND PRODUCTION

The property is composed of 19 claims which are unpatented and held by annual assessment work.

The company, Squaw Peak Copper Mining Company, is an Arizona corporation organized in 1916.

Mr. Edison Thacker, who lives at the property, is President and General Manager of the company. There are 992,882 common stock shares issued out of 2,000,000. Also 3,000 shares of \$100 preferred stock which are still in the treasury although authorized in 1949.

In 1942 there was an R.F.C. loan for increasing the capacity of the mill.

The mine has been examined and reported on by:

- 1916 - W. D. Defty
- 1927 - William Selinger
- 1929 - Robert J. Cole
- 1940 - Roy H. Belknap
- 1942 - D. F. Campbell for R.F.C.  
\$20,000 was loaned by the R.F.C.
- 1949 - J. M. Hill

In 1944, 1,000 tons of ore were treated in the 35-ton flotation mill.

The product consisted of 5.40 dry tons, 98.82% Molybdenite (MoS<sub>2</sub>) and 36.03 tons of copper concentrate running 22.85% Cu, 1.92 oz. Ag and 0.016 oz. Au.

GEOLOGY

The mountain itself is old granite with a capping of limestone near the peak. East of the peak and mine is the Verde Fault with granite on the west and blue grey Limestone on the east. The granite is Precambrian and the limestone Mississippian. West of Squaw Peak is an area of Tertiary Volcanic rocks.

The mine is in a mineralized Quartz Monzonite intrusion into the granite. The Monzonite is some 2500' long by 1200' wide at its widest point, tapering down at either end. The Monzonite is cut by many fractures and faults - striking and dipping at various angles from vertical to around 35°. At places there is more quartz than at others and the mineralization appears to increase in quantity where the quartz is more prominent. The quartz-bearing higher grade areas appear to have some connection with the fractures and faults, possibly a shear zone.

MINE

The main adit is some 500' to the main drift with mineralization starting about 370 ft. from the portal.

The south drift is some 240 ft. in length with a curve to the west at the end.

The adit is continued some 340 ft. west at a crosscut from the main drift and the north end of the main drift is some 480 ft. In the south drift there is a stope, from which ore for the 1,000 ton mill was taken, and several crosscuts. The stope connects with an upper level and shaft by means of a raise. The stope is in the so-called "core."

The Haulage level is 2050 ft. long driven in a straight line as shown on the map. It has some showing of mineralization but has not, I believe, been driven a sufficient distance.

MILL

The mill is a 35-ton flotation mill in poor repair.

The following data on the mill run of approximately 1,000 tons is taken from Hill's report.

MILL RUN

Data from milling stoped ore body, Squaw Peak Records and Alan Kisseck-Rodriguez Sampling,

975.5

Tons ore milled  
 Total tons MoS<sub>2</sub> Conc. shipped 5.408  
 " " unshipped 5.658  
 Total tons Cu Conc. shipped 36.034  
 " " unshipped 2.000  
 Total Tails 38.034 (call) 932.0

43.692  
 932.0

ANALYSIS

	MoS <sub>2</sub>	Cu%	Au oz	Ag oz	Mo Lbs. contained	Cu Lbs. contained
MoS <sub>2</sub> Conc. shipped	90.27	0.20			6172.0	11.0
" unshipped	Wtd ave.					
Total MoS <sub>2</sub> Conc.	90.64	22.8	.016	1.92		
Cu Conc. shipped						
Cu Conc. unshipped						
Total Cu Conc.			72.0		487.0	17,344.0

Total Milled 975.5  
 " Conc. 43.692  
 Total Tails (call) 932.0

6841.0

Calculated from contents

Total in 975.5 tons heads .0015 0.15 0.48 1.24

9343.0

147.0

1.24

.0015 0.15 0.48

24196.0

It will be noted that Hill gives the Mo content as .75% although according to his figures it should be 0.48.

RESERVES AND POSSIBILITIES

Hill gives the following for developed ore.

640 x 280' x 170 depth for surface = 2,538,000 tons averaging 1.63% cu 0.24% MoS<sub>2</sub>. He also gives a probable ore estimate as 31,900,000 tons above the main level. He also mentions 56,250,000 tons of possible ore.

In his figures he gives the "core" a possible tonnage of 212,000 tons from 40' wide, 240' long, 170' above level - 25' below. A stope in this area furnished the 1,000 tons for the mill run and he gives it an average value of 1.20% Cu, 0.75% MoS<sub>2</sub> and 0.50 oz. Ag. This would be 1.20% Cu, .45% Mo instead of MoS<sub>2</sub>.

CONCLUSION

This property is on the border line. It is possible but I doubt if there is any large tonnage of 1.2% Cu and .45% Mo. There is also the possibility of a very large tonnage of .5% Cu, .08% Mo ore and, of course, the 1% and .5% Mo would be a sweetener and there is the possibility of more than one "core" of higher grade.

.5% Cu and .08% Mo	=	\$ 5.90	90% Recovery
1.2% Cu .45% Mo	=	19.32	\$ 5.31
			17.39

It is impossible to tell offhand without extensive sampling and if future markets are encouraging I suggest the following:

Air lines are in place throughout the mine. Using jackhammers I would drill 5' holes at 5' intervals throughout the level using the cuttings as samples. This should outline the mineralized area and give a definite idea of the correct grade. It would not be extremely expensive as pipe and track are laid. This might indicate a large tonnage low grade mine.

Respectfully submitted,

Daniel Stranahan

SQUAW PEAK

Sample #

Cu

Mo

1  
2  
3  
4  
5  
6  
7  
8  
9

.75  
1.04  
.36  
.49  
.44  
.51  
.19  
1.16  
.77

.26  
.12  
.09  
.08  
.07  
.07  
.06  
.37  
.42

GEORGE